

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. Process for anticipating and/or preventing ~~the-a~~ risk of spontaneous ignition and/or explosion of an explosive atmosphere stored in a confined or semi-confined environment chosen from ~~the-a~~ group consisting of a grain silo, a center for storing coal dust, industrial dusts, animal or plant meals or fertilizers, driftways and fuel tanks optionally incorporated in a vehicle, in which ~~the-a~~ temperature of ~~the-a~~ mixture and any change over time are measured from the time of creation of said atmosphere, and the critical moment of spontaneous ignition and/or explosion of this mixture is determined by determining the induction time remaining to go, that is to say the time elapsed between the creation of said atmosphere and the critical moment beyond which there is a risk of said atmosphere spontaneously igniting and/or exploding.
2. Process according to Claim 1, characterized in that ~~wherein~~ the fertilizers are chemical fertilizers or ammonium nitrates.
3. Process according to Claim 1, characterized in that ~~wherein~~ the fuel tanks are tanks of hydrocarbons chosen from the group consisting of kerosene, petroleum spirit, methane, butane and propane.
4. Process according to Claim 1, characterized in that ~~wherein~~ the hydrocarbon tank is a truck, aircraft or boat tank.
5. Process according to ~~any one of the preceding claims 1, characterized in that~~ ~~wherein~~ use is made of alarm means or means for preventing spontaneous ignition and/or explosion of said atmosphere when the time elapsed from the moment of creation of said atmosphere approaches the critical moment ( $\tau_i$ ) of spontaneous ignition.

6. Process according to any one of the preceding claims 5, characterized in that wherein the implementation of the alarm means and/or means for preventing spontaneous ignition and/or explosion of said atmosphere is engaged manually or automatically.

7. Process for preventing the-a risk of spontaneous ignition of an atmosphere of an environment selected from the a group consisting of again silo, a center for storing coal dust, industrial dust, animal or plant flours or fertilizers, driftways and fuel tanks optionally incorporated in a vehicle,

wherein the atmosphere being approximately at ambient temperature, the-an induction time before spontaneous ignition and/or explosion is determined through a measurement of the an initial temperature of the atmosphere.

8. Process according to claim-4 7, wherein the ambient temperature variation over time is measured.

9. Process according to claim-4 7, wherein the atmosphere comprises gas, vapors, mists, dusts, emulsions or combustible grains, mixed or in contact with oxygen or air.

10. Process according to claim-4 7, wherein the atmosphere is in a confined or semi-confined environment.

11. Process according to claim-4 10, wherein the atmosphere is in a flat silo or in contact with the-a surface of semi-confined bulk storage.

12. Process according to claim-4 7, wherein the fertilizers are chemical fertilizers or ammonium nitrates.

13. Process according to claim-4 7, wherein the fuel tanks are storage tanks of hydrocarbons chosen from the group consisting of kerosene, fuels, methane, butane and propane.

14. Process according to claim -1 13, wherein the hydrocarbon tank is a truck, aircraft or boat tank.

15. Process according to claim -1 7, wherein use is made of alarm means for preventing spontaneous ignition and/or explosion of said atmosphere when the induction time elapsed from the moment of creation of said atmosphere approaches the critical moment ( $t_c$ ) of spontaneous ignition.